

## **CHAPTER V**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1. Conclusion**

Based on the test results and discussions conducted in this study, the following conclusions can be drawn:

1. A cryptocurrency trading decision support system based on multi-indicator technical analysis has been successfully designed and implemented. The system is capable of automatically generating buy, sell, and neutral signals to simplify analysis for users.
2. The combination of technical indicators with a weight optimization approach demonstrated competitive performance compared to the use of a single indicator on the test data used. In the ADA-USD asset test, this method yielded a Return on Investment (ROI) of 188.51% over the short-term period, which was higher than the best single indicator's ROI of 86.37%. Meanwhile, in the testing of 7 cryptocurrencies with large market capitalizations, this method showed better performance on 5 of the 7 assets tested, namely XRP-USD, SOL-USD, DOGE-USD, ADA-USD, and BCH-USD.
3. The system is capable of evaluating the performance of trading strategies through backtesting. The use of evaluation metrics such as Return on Investment (ROI), Win Rate, Maximum Drawdown (MDD), and Sharpe Ratio provides a more comprehensive picture of profitability and risk levels. As a result, these evaluation results can be used as supporting information in the trading decision-making process.

#### **5.2. Recommendations**

For future research, the following suggestions can be offered:

1. Future research could expand the number of technical indicator combinations and take transaction costs into account.
2. Future research could incorporate global sentiment analysis to improve accuracy in analyzing broader market conditions.